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Lightning Talk: Re/Mapping the Archives: Repository Content for the Digital Humanities and Cartographer

Michael R. Howser
San Diego State University, mhowser@sdsu.edu

Lightning Talk: Re/Mapping the Archives: Repository Content for the Digital Humanities and Cartographer

Presenter 1 Title

Social Sciences & Data Librarian

Session Type

10-minute lightning talk

Abstract

The print map, once seen as a unique and preservation worthy collection treated uniquely as a collection housed within a separate library or library space, has seen a precipitous decline in usage since Google Maps and other online tools emerged on the scene starting in 2005. With many print map collections experiencing declines in researcher requests per year, this inevitable decline of print map usage underscores the difficulty in discovering maps via the library catalog, search engines, and/or via finding aids. As collection space is pinned against demands for student space, print map collections are targets for capturing additional space and rapid deaccessioning, but there is a better path forward which is a win-win for researchers and library administrators.

A renaissance in map usage is within grasp as print map collections are digitized if approached from a digital humanities and cartographer first mindset. Creating a digital facsimile of the print map alone is not sufficient as digitized maps must include a digital map viewer, descriptive metadata, coordinates, be presented in format(s) that empower researchers to use/mix/reuse maps, and provide unmediated access to full-quality maps, all within a digital archive environment. This approach enables digital humanities and the cartographer researchers to discover maps, create new forms of scholarship with maps, and increase map collection usage while enabling physical collections to be retained in lesser demand spaces or off-site. This session provides applied approaches for discovery and access to digital map collections to address digital humanities and cartography researchers.

Location

KIPJ Theatre

Keywords

Digital Humanities, maps, digitization, archives, cartographic materials, coordinates, map collections, digital archives

Re/Mapping the Archives:

Repository Content for the Digital Humanities and Cartographer

Michael R. Howser

San Diego State University
Library

About Me

- I’m a Geographer and Librarian
- Co-developed and launched a digital repository
- Developed digital humanities projects, including NEH funded project.
- Have made mistakes in approaches and learned from them
- Actively working on my dissertation in the field of Geography with focus on long term preservation strategies for cartographic and spatial collections.

Photo by Matthew Spiteri on Unsplash

The Three Elephants

1: The Landscape

2: Space vs Collections

3: Preservation, Access, and the Future

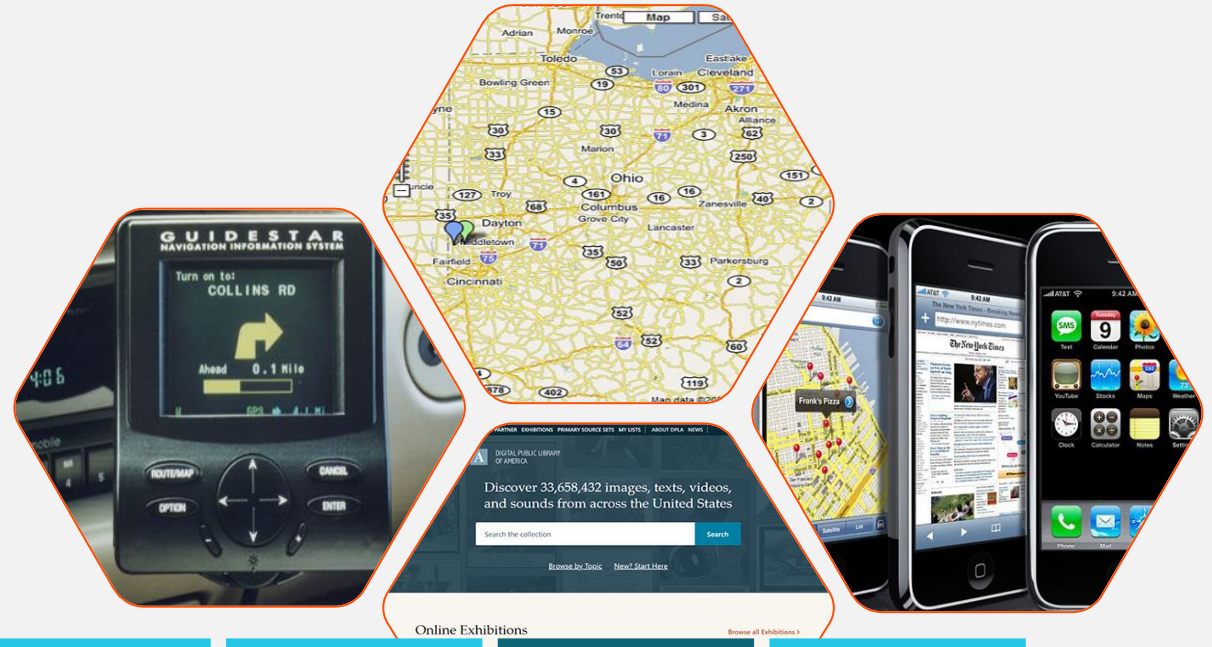
1

The Landscape

Photo by David Clode on Unsplash

The Disruption of Cartography

Shift from maps in libraries to maps everywhere*



Guidestar Oldsmobile 4/12/1992[1]

MapQuest TripQuest 02/5/1996[3]

US GPS Degrading End 5/1/2000[5]

Keyhole LT 11/17/2003[7]

Google Acq Keyhole 10/27/2004[9]

Google Earth 6/28/2005[11]

iPhone 6/2007[13]

DPLA 10/2010[15]

US GPS Dual Use Policy 3/29/1996[2]

David Rumsey Maps 3/2000[4]

ESRI ArcIMS Summer 2000[6]

Open StreetMap 8/9/2004[8]

Google Maps Beta 2/8/2005[10]

Google StreetView 5/25/2007[12]

Android Phone 9/23/2008[14]

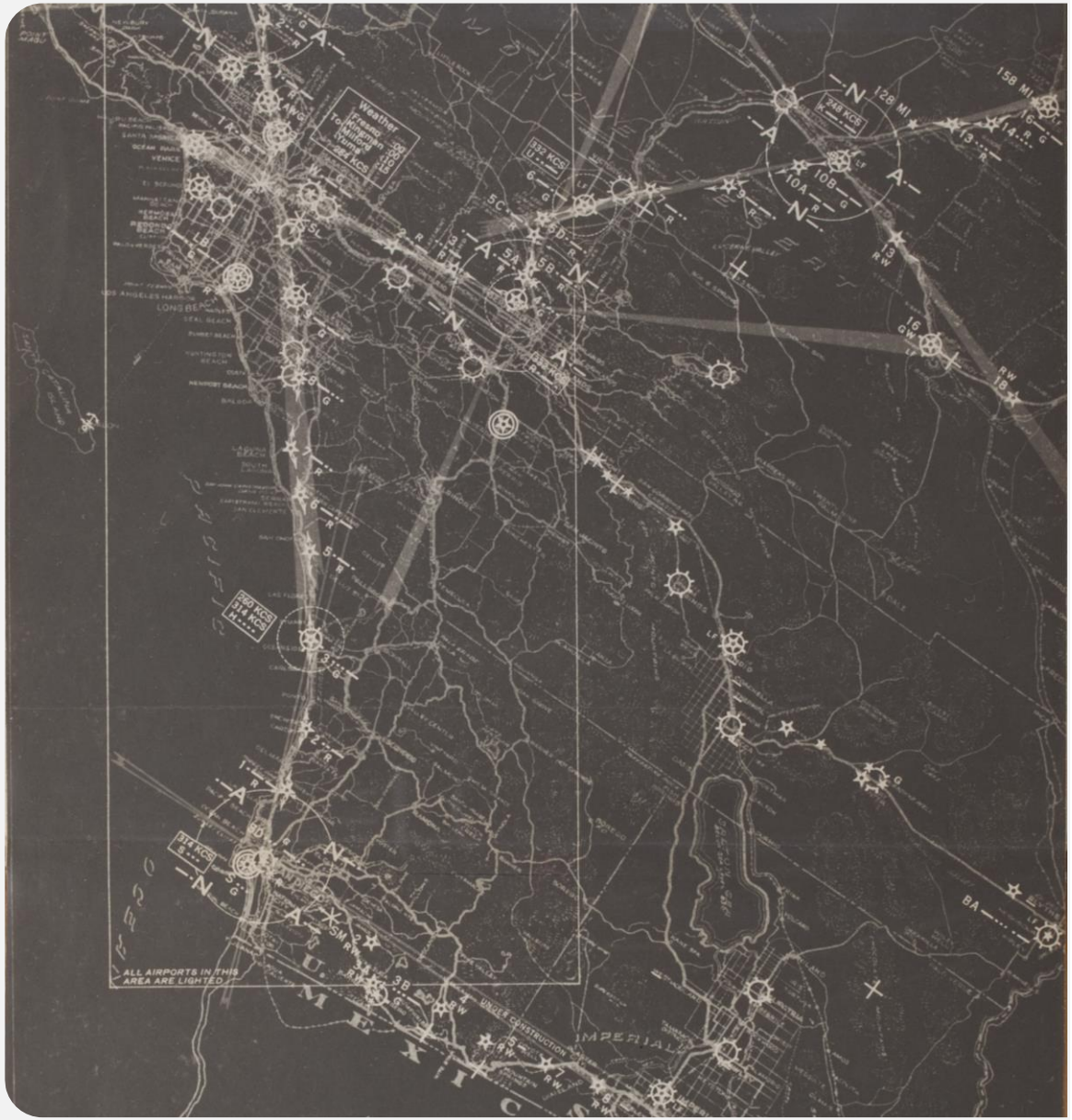
USGS topoView 7/11/2017[16]

[1] TRAVTEK Makes Mission Possible
[2] Office of Science Technology Policy National Security Council Fact Sheet U.S. Global Positioning System Policy
[3] Digital Archaeology Plotting the Past
[4] State of the Art David Rumsey's Online Map Collection
[5] Statement by the President Regarding the United States' Decision to Stop Degrading Global Positioning System Accuracy
[6] ArcNews Online ArcIMS Special Section
[7] Keyhole Unleashes "Keyhole LT" – The Digital Earth for Consumers
[8] History of OpenStreetMap

[9] Google Acquires Keyhole Corp
[10] Google Maps Beta and Google Maps API
[11] Google Launches Free 3D Mapping and Search Product
[12] Google Maps Street View – Launch Video
[13] Apple Reinvents the Phone with iPhone
[14] T-Mobile officially announces the G1 Android phone
[15] One Step Closer to a National Digital Library
[16] USGS topoView

The Democratization of Maps

- Efforts focused on digitizing maps with many collections online, often with open access.
- Rare maps as primary sources for non geography classes.
- New technologies enable new ways to utilize maps.
- Military and research focused imagery becomes publicly accessible.
- GPS accuracy for civilians improved enabling a number of new devices and applications.



Source: http://hdl.handle.net/11134/20002:860276280

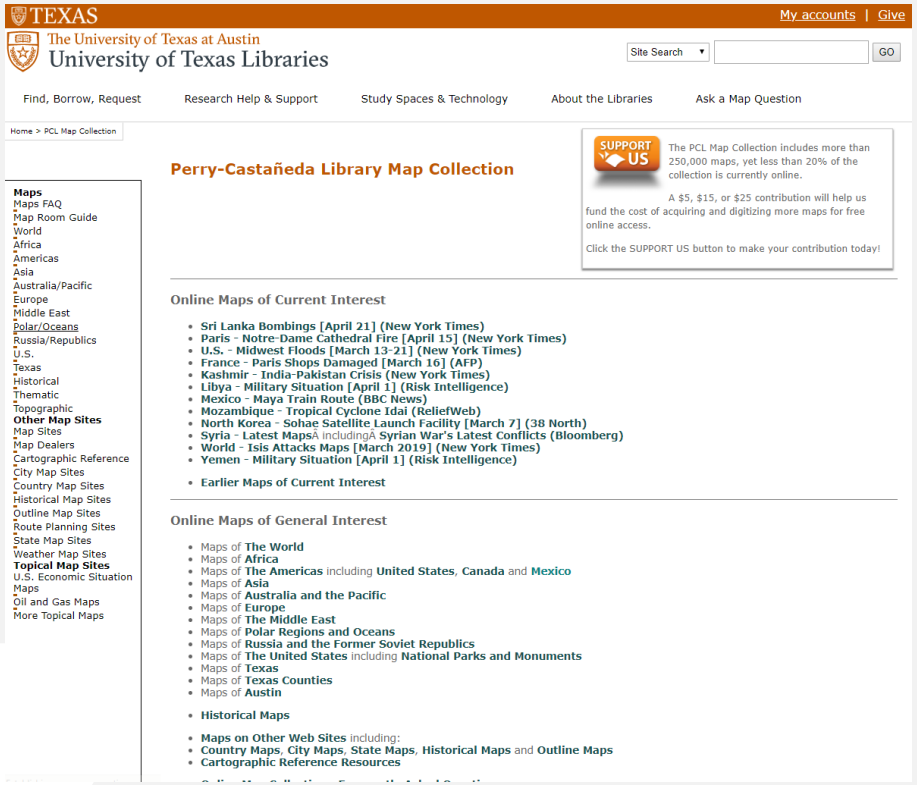
From GIS to Web Mapping

- Creating maps required intense training within specialized GIS and cartography software.
- MapQuest, Google Earth, Google Maps, and other technologies provided examples of displaying spatial information over a basemap.
- Web mapping tools are embraced by disciplines beyond Geography.
- Instead of focusing on making the entire map, could now focus on layers unique to the research and analysis being performed.

Exemplary Examples of Transforming Map Collections

Perry-Castañeda Library Map Collection

lib.utexas.edu/maps



David Rumsey

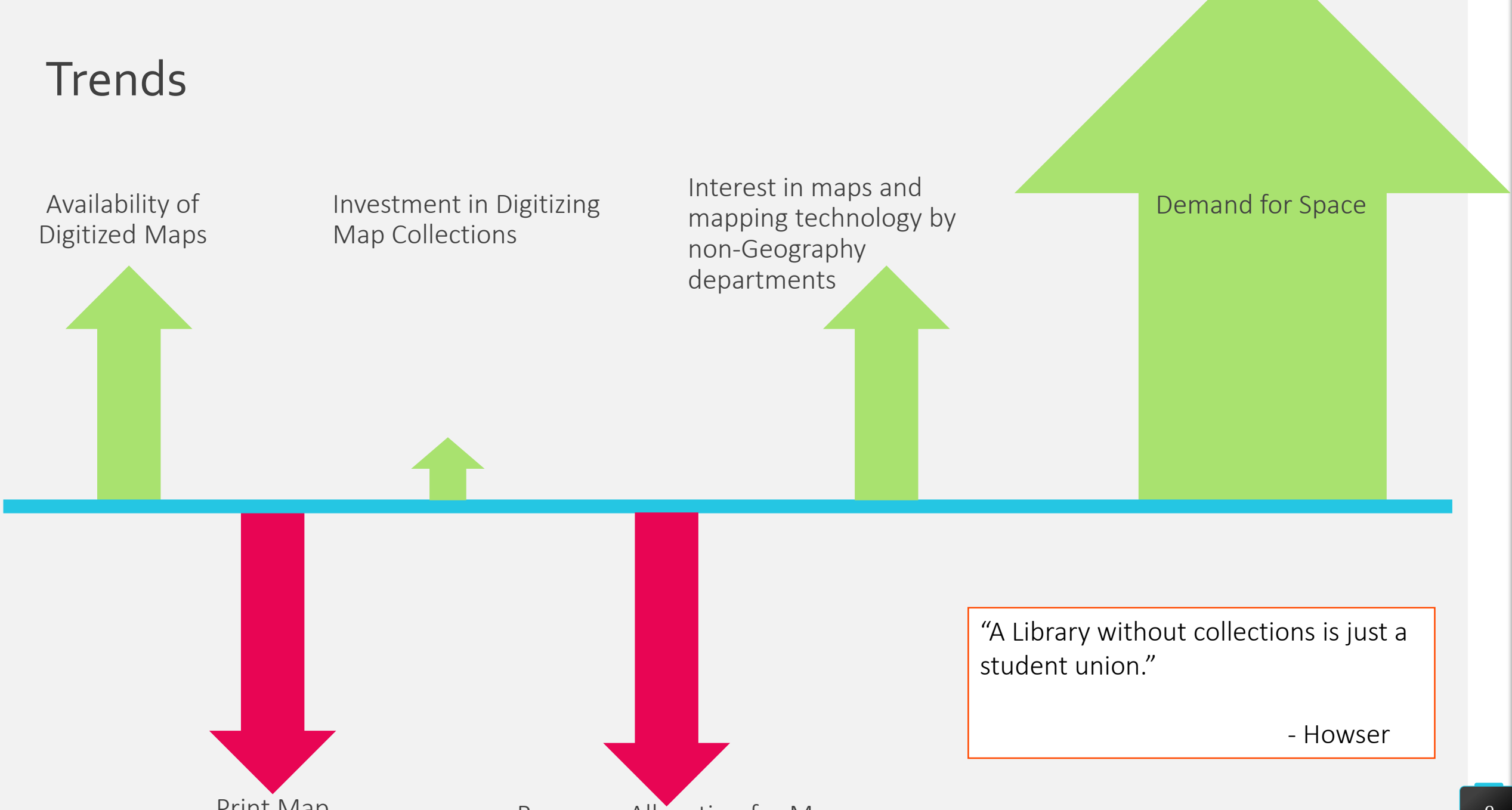
davidrumsey.com

2

Collections vs Space

Photo by Wynand Uys on Unsplash

Trends



"A Library without collections is just a student union."

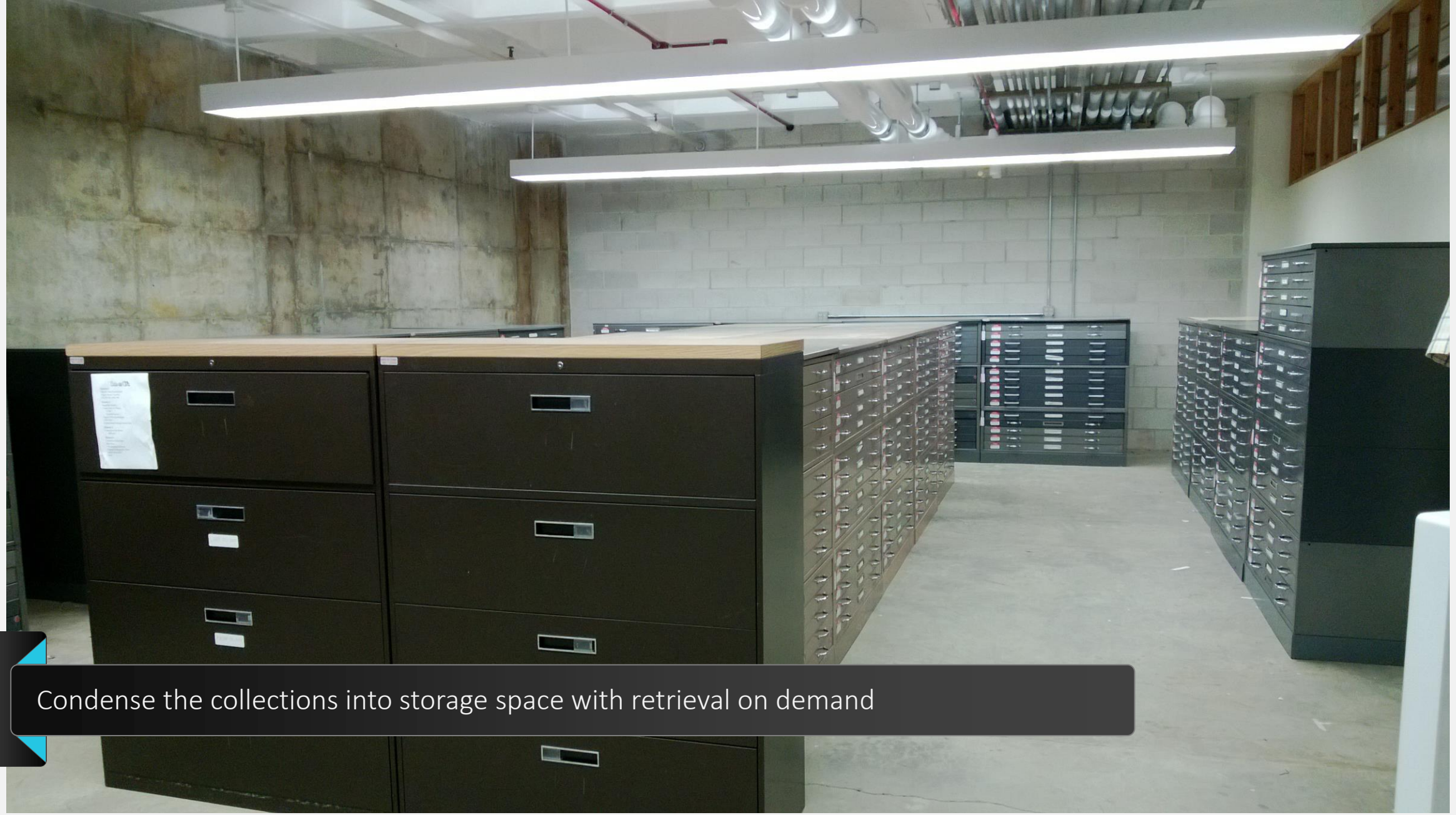
- Howser

Thousands of “Maps” gathered by format, arranged by area/subject/randomness, seldom cataloged completely

This GIF image of Bill Lumbergh from Office Space Removed

We need more student space so if you could clear out these maps that would be GREAT…

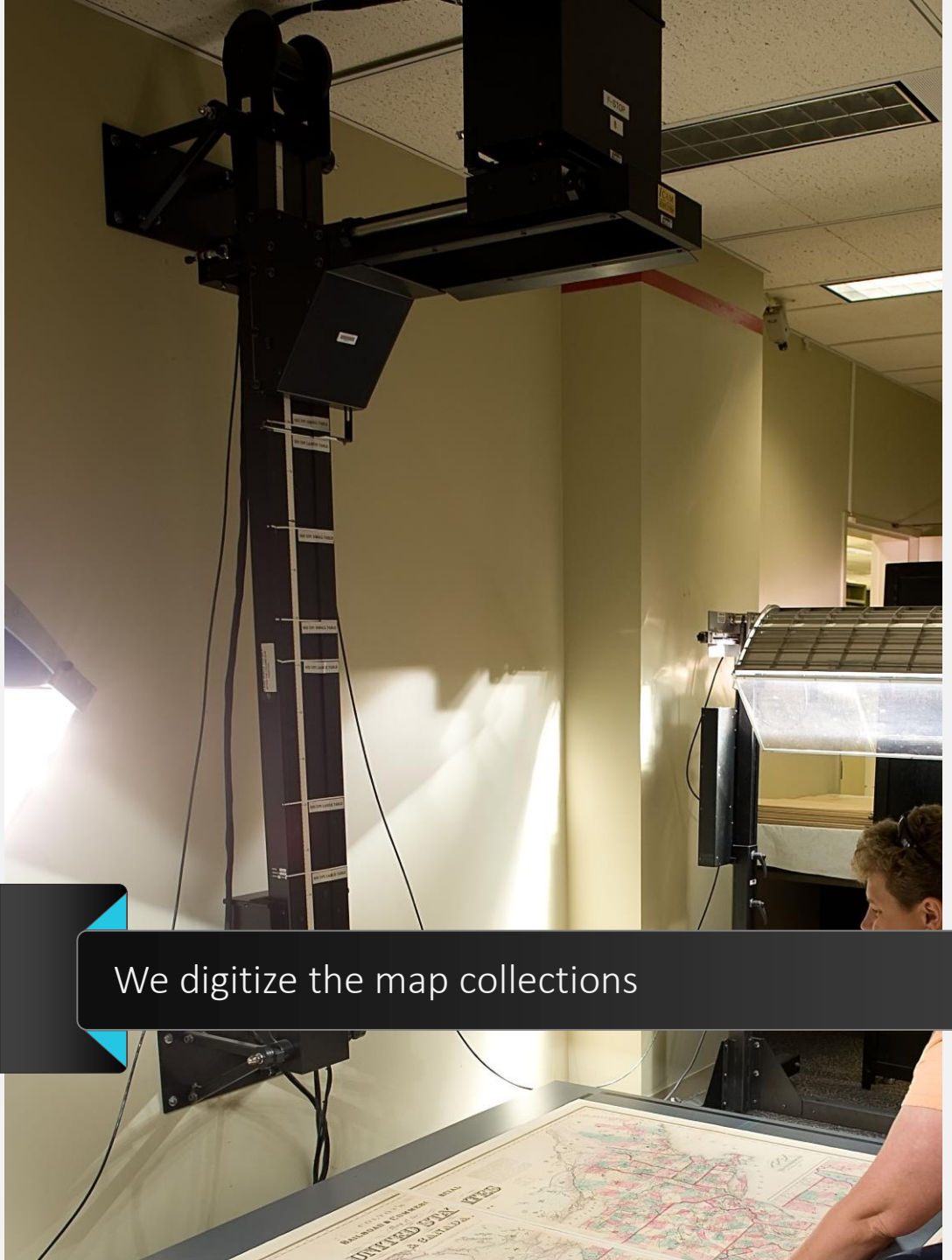
Review and move print collections



Condense the collections into storage space with retrieval on demand

This GIF image of Bob Porter and Bob Slydell from Office Space Removed

We need that storage space now. Aren’t these maps all online?



We digitize the map collections

Infrastructure is needed

Photo by imgix on Unsplash

This GIF image of Milton Waddams grabbing red Swingline stapler from Office Space Removed

Feel Familiar? MAP COLLECTIONS HAVE VALUE! They have been collected for a reason and are rich with data for cartographers, historians, and digital humanities researchers. Do not discard without careful review!

3

Preservation, Access, and the Future

Photo by ChenHu on Unsplash

Different Approaches, Similar Archival Needs

Cartographer

- Utilizes multiple basemaps and cartographic sources
- Layers of data created on-screen or via scripts
- End Product is map

- What is worth of preservation?
  - Layers of unique data created
  - ***Bibliography and methodology***
  - Possibly the print quality map in digital format

Digital Humanities Researcher

- Multiple primary sources consulted (likely non-map)
- Create a few layers of data, often on-screen
- End product is analysis or visualization

- What is worthy of preservation?
  - Layers of unique data created
  - Bibliography and methodology

What is unique?

- Separate interface from content
- What data/information was created vs acquired/assembled

Photo by Samuel Zeller on Unsplash

What is needed to replicate research?

- For cartographic materials and spatial datasets, this is an often overlooked step.
- Documenting sources of data, how data was created/assembled, and methods used will enable replication of research.
- Basemaps – sources identified and outline if they are being preserved by the providers.

Photo by Sonny Ravesteijn on Unsplash

What format(s) needed to be preserved?

- Is the end product more important or the data utilized to create the end product?
- Is the file format of lasting value and commonly used?

Photo by Florencia Viadana on Unsplash

How should the information be provided/presented

- Identify which format(s) and product(s) should be included within a digital repository.
- Determine if a representation of the original work and/or the underlying data is needed to enable future research.
- Included a coordinate or geographic term to the metadata record to enable visualization of collection(s) by geography.

Photo by Makarios Tang on Unsplash

Digitized Map from Collection

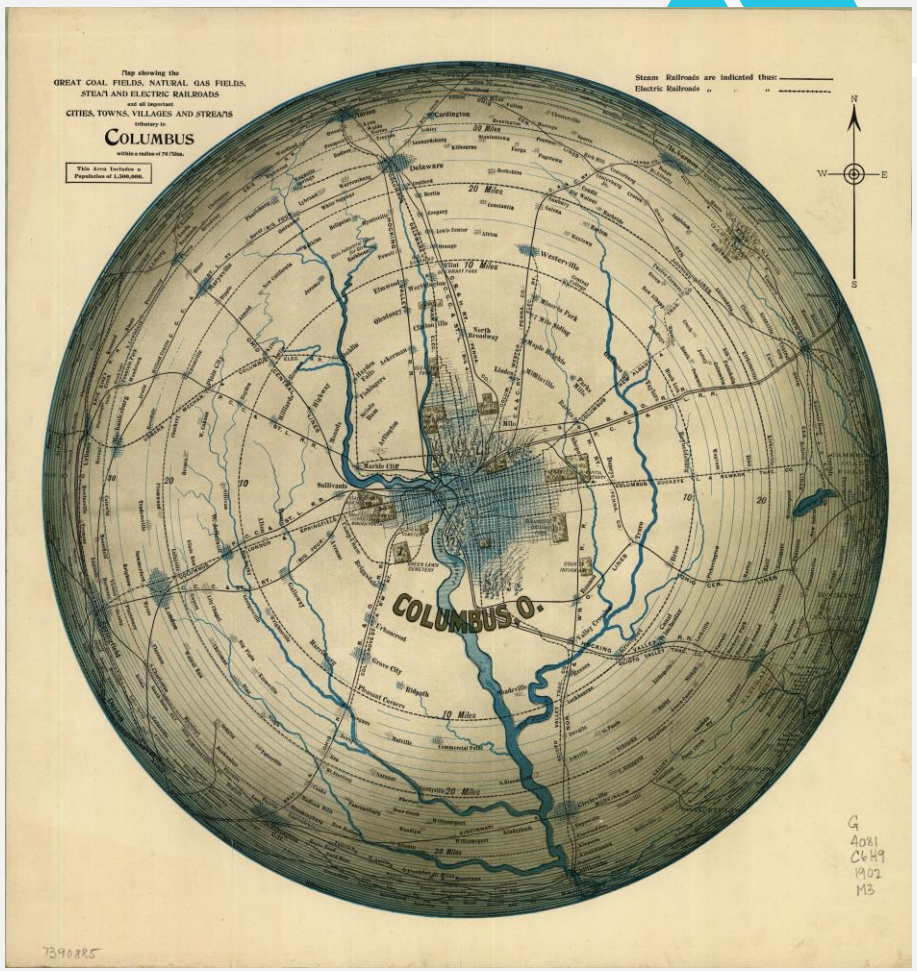
Content

- Unique: Digitized Map from Collection with no copyright restrictions.

Preservation Strategy:

- Digitize the map at the highest quality possible and save image in a lossless format (.JP2 or .TIFF)
  - *Do not save in PDF format, image formats are preferable for Cartographers and Digital Humanities Researchers*
- Create metadata which includes date and other key information.
- *Islandora Approach:* Utilize the Large Image content model.

Display/Experience



Interactive Maps & Content

Content

- Unique: 4 KML files of user input
- Not Unique: Google Map Interface/basemap

Preservation Strategy:

- Retain KML files, depending on data structure, may want to convert to shapefile or other format.
- Create metadata which includes date and other key information.
- Focus on unique data which would be needed to recreate map.
- Possibly create a screenshot or PDF of original interface, and include brief description of the project.
- *Islandora Approach:* Create as a compound object with the binary content model for the KML/Shapefile, and the Large Image or PDF content model for snapshot of original interface.

Display/Experience

Antiquated Interactive Maps

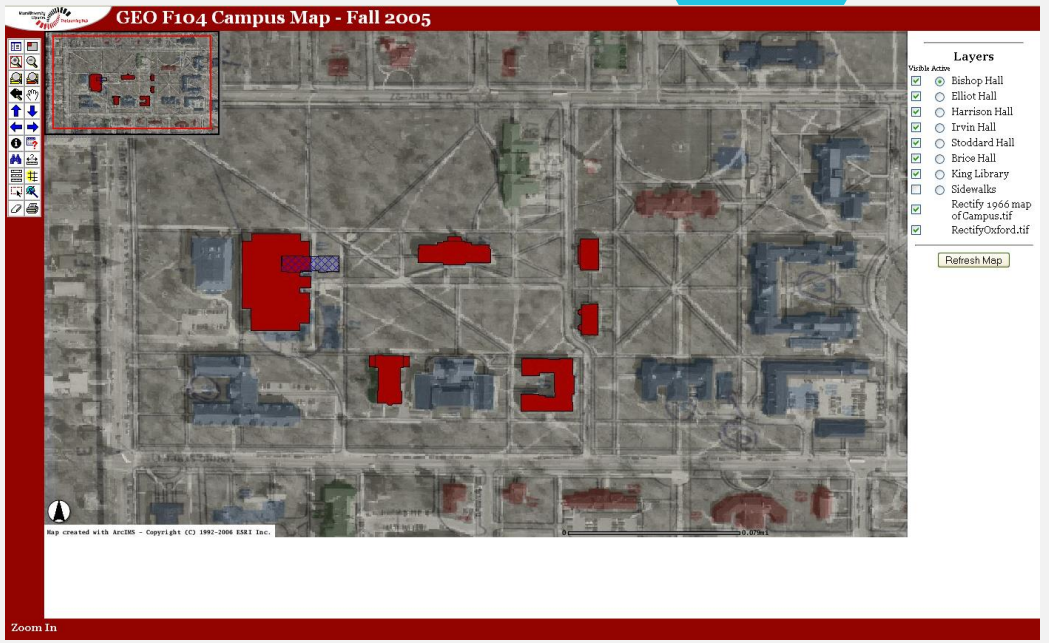
Content

- Unique: Shapefile of campus buildings, digitized and georeferenced basemap
- Not Unique: Interface

Preservation Strategy:

- Retain shapefile (.shp) and georeferenced basemap (.tif).
- Create metadata which includes date and other key information.
- *Islandora Approach:* Create as a compound object with the binary content model for the Shapefile, binary content model for the GeoTiff, and Large Image or PDF content model for snapshot of original interface.

Display/Experience



Atlases

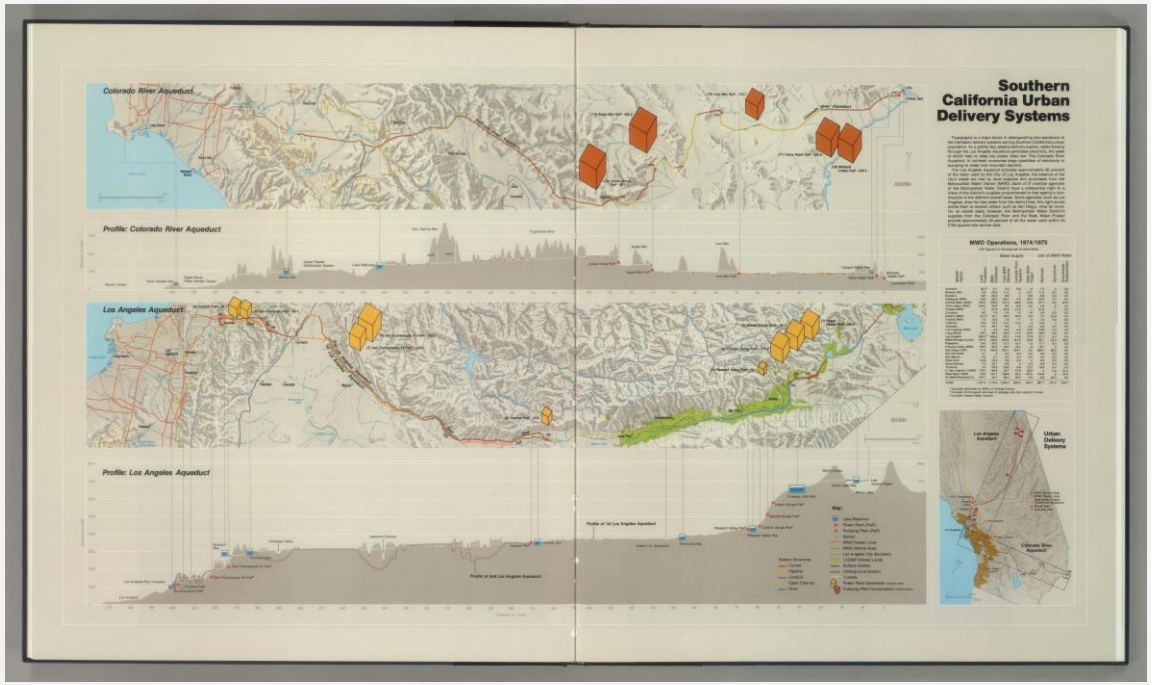
Content

- Unique: Series of maps not published in other format

Display/Experience

Preservation Strategy:

- Digitize each page, retain individual images
- Create metadata which includes date and other key information.
- *Islandora Approach:* Create as a book object with the pages as Large Image and a PDF can be created for the entire book. This enables researchers to use and reference only one page.



https://www.davidrumsey.com/luna/servlet/s/4lzhyo

Topographic Maps of the United States

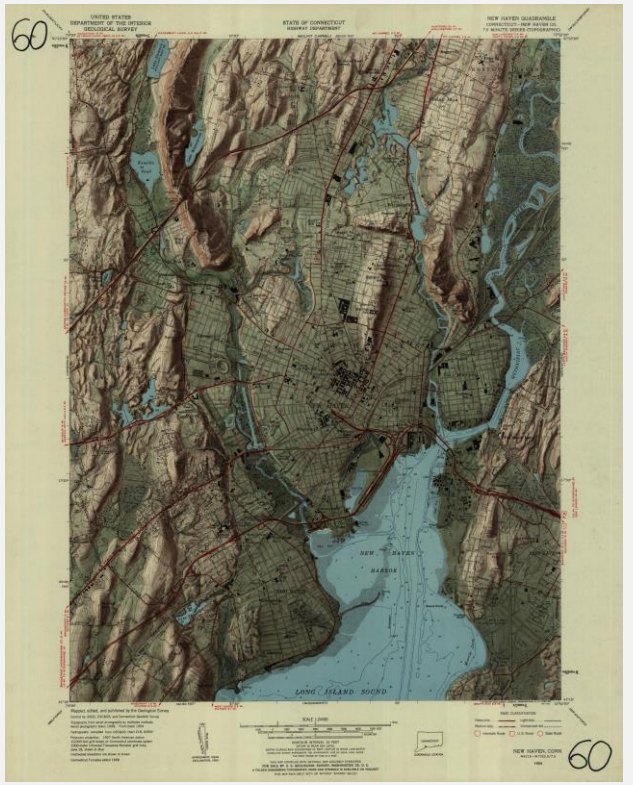
Content

- Not Unique

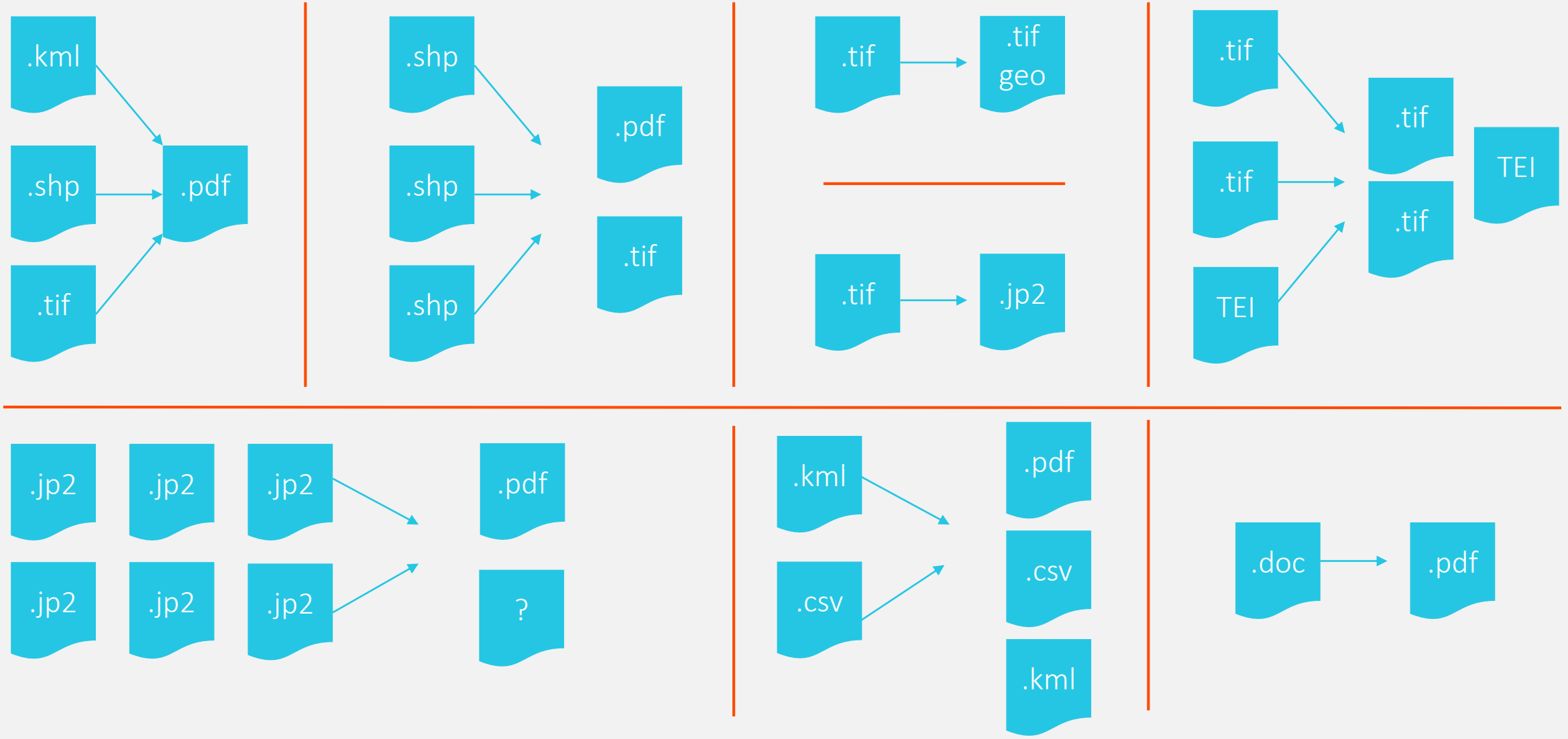
Display/Experience

Preservation Strategy:

- Verify topographic map is available via USGS topoView, if available do not digitize.
- USGS topoView provides GeoTIFF version so no value add in digitizing your own collection of USGS topographic maps.



Scenarios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Access to Content

- Ingest content into a digital repository
- Is the digital repository part of the Digital Public Library of America (DPLA)?
- Integrate your digital repository content in your ILS.
- Focus on digitizing and cataloging the digital version.

ThankYou

Michael R. Howser

619 594 3017

mhowser@sdsu.edu